DESIGN-BUILD PROCUREMENT PROCESS REPORT

MARCH 2003

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

GEORGE E. PATAKI, Governor

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DESIGN-BUILD PROCUREMENT PROCESS REPORT

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FOR

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

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DESIGN-BUILD PROCUREMENT PROCESS REPORT

1.0 Executive Summary

In anticipation of the enactment of legislation to provide for the use of design-build contracts by the New York State Department of Transportation, the Department has developed recommendations for a process to implement the design-build method of project delivery. The recommended design-build process of this report is based on a review of design-build practices used in the United States and conforms to the pending New York State legislation and the proposed Federal Highway Administration rules and regulations concerning design-build contracting. The report reviews the background, assumptions, and rationale leading to the recommendations, describes the steps in the selection process to obtain a Design-Build entity, recommends changes to current NYSDOT documents, and identifies new documents necessary for a successful Design-Build program.

Currently, the Department utilizes a contracting process for its construction program where selection of a contractor is based on a low bid submitted by contractors for the construction of projects that are fully described in plans, specifications and other contract documents. This approach has regularly and successfully delivered a multi-billion dollar annual construction program. However, due to the increasing pressures to complete projects more quickly, with fewer State personnel, while maintaining the traditionally high standards of the Department's design and construction programs, innovative new approaches are required.

Design-build contracting has been growing in use in the United States and has been successful in helping other states' departments of transportation meet their construction program goals. This report recommends, for use by New York State, a design-build method to augment the traditional methods in delivering the annual construction program.

Not only will the use of design-build contracting by the New York State Department of Transportation, as recommended in this report, require the development of new contract documents, contracting procedures, and processes, it will also require new approaches and a change in "mindset" for procuring and administering design and construction services for transportation projects. The suggested process will require education and training of staff to implement the design-build method of project delivery that relies on partnering and mutual trust between the Department and contractors.

The report anticipates that the recommendations will be reviewed and commented upon by the Department, and that a final design-build process will emerge for Department use.

2.0 Background

2.1 Scope of Design-Build Procurement Process Report

This Design-Build Procurement Process Report builds on the information obtained from and knowledge gained in:

- A review of the existing State (primarily NYSDOT) policies, procedures and contract documents as summarized in the Technical Memorandum of February 19, 2002;
- Research of industry design-build practices as summarized and analyzed in the Design-Build Practice Report of May 2002 (Final Draft);
- The pending design-build legislation, "Design-Build Contracts", for New York State (NYS) [Assembly Bill A00093, 2001-2002 Regular Session];
- The FHWA proposed rule for design-build contracting (under TEA-21) [Federal Register: October 19, 2001, Vol. 66, No. 203, Pages 53288-53311]; and
- The NYSDOT Design-Build Strategic Planning Workshop conducted April 2-3, 2002.

Based on the information obtained from the above sources, this Design-Build Procurement Process Report provides recommendations, consistent with the proposed draft design-build legislation, for:

- A design-build procurement process that culminates in the selection of a design-build contractor (supporting documents will need to be fully developed);
- Changing the NYSDOT current contract documents (actual changes will need to be written);
- Changing the NYSDOT current procedures and guidance for project administration and oversight (actual changes will need to be written); and
- Other new documentation necessary for a successful Design-Build program (documents will need to be fully developed).

2.2 Best Practices from Design-Build Practice Report

The Design-Build Practice Report contains an overview of issues associated with the current policies and procedures followed by federal, state and local agencies, and in particular, other state transportation and highway agencies, concerning the use of design-build contracts. The report was based primarily on a survey of and discussions with public agencies identified as having significant experience utilizing the design-build delivery method for capital construction projects. There were 14 participants, including seven state Departments of Transportation (DOTs), four transportation authorities, one Department of Defense agency, one County, and FHWA. The report documents the results of the information

collection process and discusses how other agencies address matters that will be relevant to NYSDOT in setting up its design-build program, including factors considered in selection of projects for design-build, procurement procedures, contract terms and conditions, allocation of risk, and administration and oversight of the design-build process.

The report provides a background of the agencies including their design-build experience and programs (or specific projects), survey responses and an analysis of the responses. For state DOTs, the FHWA Special Experimental Project-14 (SEP-14) approval process has been very liberal with regard to procurement processes in order to encourage the testing of innovative delivery methods. On the other hand, some of the states' statutes that allow design-build contain more restrictive, "award to lowest price"-driven procedures that do not recognize and take advantage of an alternate way of doing business. Notwithstanding the disparity in practices undertaken by different agencies, a review of the surveys and the Design-Build Practice Report shows that certain practices can be considered "best practices", the most significant being:

- **Early Acquisition Planning:** An acquisition planning process to identify the most appropriate delivery method for individual projects and consequently those that are the best candidates for execution using design-build.

- **Procurement Strategy:** A procurement strategy process for a design-build project to identify the stakeholders, goals, challenges, risks, and approaches to guide the procurement process.

- **Risk Assessment and Allocation:** A risk identification, assessment, and allocation process and acknowledgement of the need for risk sharing.

- **Design-Build Procurement Process:** Two-phase process for procuring a design-builder: Phase 1 -- Request for Qualifications (RFQ), evaluation and short listing and acknowledgement that the list of proposers needs to be narrowed; Phase 2 -- Request for Proposals (RFP), evaluation and selection.

- **Selection of Design-builder:** Best value as the selection method, i.e., evaluation of quality as well as price, providing the flexibility to select other than low price. The best value selection method includes the use of competitive range, discussions (with proposers), best and final offers (termed "final proposal revision" in TEA-21 proposed rules), and when appropriate, a stipulated sum. The surveys did not establish a best practice regarding how to make the best value determination (i.e., using either the technique of scoring/formula or adjectival/analysis).

- **Performance Specifications:** Use of performance specifications to provide flexibility and to encourage creativity and innovation in design and construction.

- **RFP Review:** Industry review process (review of draft RFP) with shortlisted proposers.

- **Stipends:** Use of stipends by some to encourage participation and offset some of the higher costs associated with preparing a design-build proposal.

- **Limited Preliminary Design:** Movement toward less preliminary design, but maintaining sufficient preliminary engineering consistent with both risk sharing (especially geotechnical investigations) and information needed during the environmental analysis and approval process.

- **Design Review:** Design review by design-builder—over-the-shoulder review and/or oversight by owner.

- **Construction QC/QA:** Construction Quality Control (QC) by design-builder. Surveys were mixed on level of QA by design-builder—with certain exceptions, the trend is toward moving maximum Quality Assurance (QA) to design-builder while requiring design-builder to have independent QA (some prefer design-builder's designer in this role), while retaining varying levels of oversight, verification, Independent Assurance (IA) and audit with the owner.

- **Partnering:** Extensive use of Partnering.

- **ROW:** Trend is toward owners awarding the design-build contract prior to acquiring all right-of-way (ROW)—some owners (and some FHWA offices) still require having all ROW in hand prior to issuing RFP.

- **Utilities:** Utility relocations present a significant risk that has been mitigated by owner actions such as pre-proposal investigations and master agreements with utility owners. Also, allocating responsibility for design and construction of relocations to the design-builder has been successful in reducing this risk.

- **Hazardous Materials and Contaminated Substances (Hazmat):** Creative, risk-sharing techniques to address Hazmat issues.

- **Incentives:** Use of incentives, including award fee, is a means used by many owners to encourage and reward better than average performance.

2.3 Guidance from Design-Build Strategic Planning Workshop

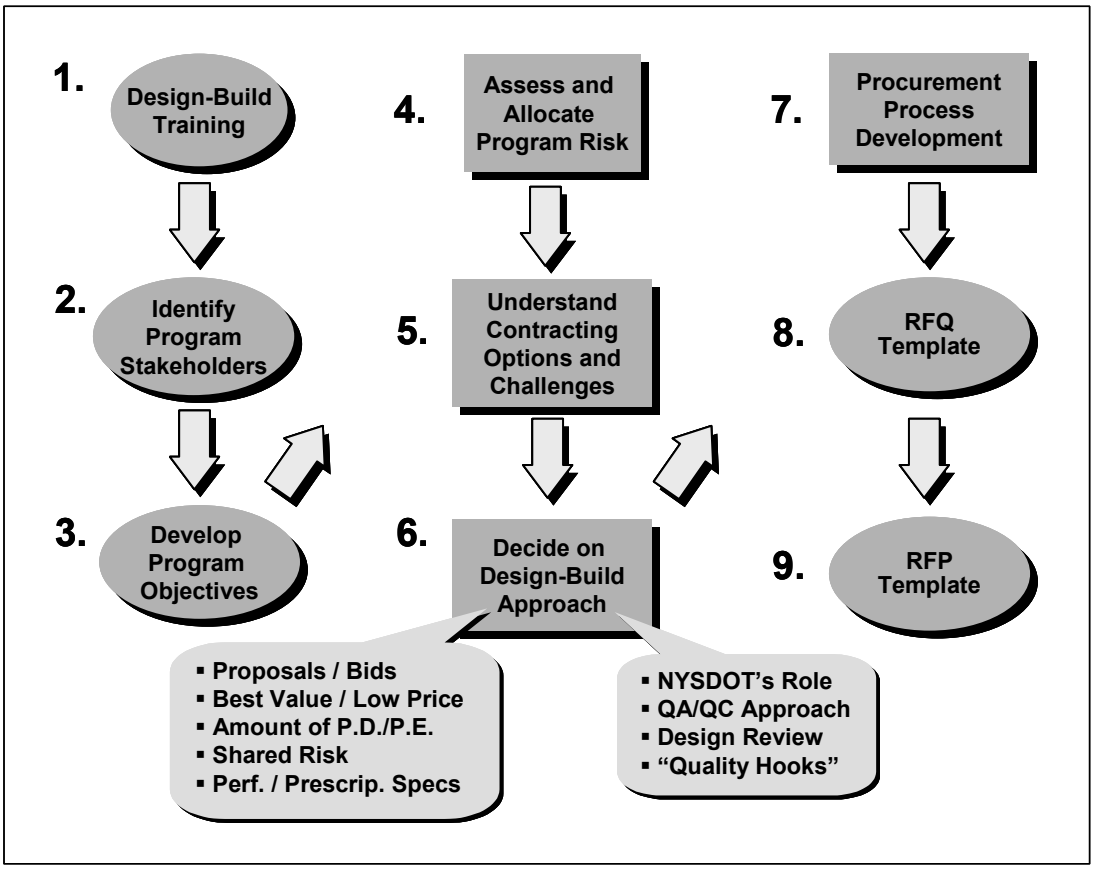
A workshop was held April 2-3, 2002 involving senior NYSDOT executives (from the Main Office and the Regional Offices) and the design-build program consultant to address a programmatic strategy for design-build. A prototype project, "The Reconstruction of Route 9A", was used to facilitate understanding of the process and encourage creative discussion. Appendix 1 contains a report of the workshop. Objectives of the workshop were to:

- Impart a modest level of training and understanding of design-build;
- Discuss the results of the review of the existing state (primarily NYSDOT) policies, procedures and contract documents, the research of industry design-build practices, and the pending NYS legislation;
- Experience the process of developing a design-build procurement strategy, including goals, stakeholder concerns, risks, contracting options, challenges and different design-build approaches;
- Stimulate experienced and creative input;
- Gain from the Department's senior level executives the ownership and buy-in necessary to implement the design-build process; and
- Obtain guidance on program level approaches to design-build.

The approaches presented and discussed were very similar to the best practice trends in Section 2.2 of this report. Overall the workshop achieved these objectives.

During the NYSDOT Design-Build Strategic Planning Workshop, using the process depicted in *Figure 2-1* on the following page, a programmatic procurement strategy was formulated resulting in the recommended design-build approach in Section 3.2.

Figure 2-1 -- Program Procurement Strategy Process



Several issues elicited significant discussion at the workshop and will therefore need to be carefully addressed in the recommendations. They are:

Specifications

The subject of specifications raised the issue of how design-build procurements will treat the NYSDOT technical documents (e.g., Design Procedures Manual, Highway Design Manual, Standard Specifications, and others that were reviewed). There is a need to preserve the wealth of experience and lessons learned that are embodied in these technical documents, while providing flexibility and encouraging necessary innovation and creativity. Section 4.2 of this report and follow-on document development will address this issue.

Stipends

The pending design-build legislation is silent on the use of stipends. The discussion ended with a suggestion to include stipends as an option to be considered and used on a case-by-case basis.

NEPA

The FHWA proposed TEA-21 rules prohibit the release of a RFP until the NEPA process has concluded. There was discussion over how much "design specificity" needs to be in a NEPA document when using the design-build delivery method to procure the project. When using design-bid-build, the design is often taken to a higher level of detail during the NEPA process than is required by NEPA. For such projects, advancing the design can be beneficial since it will also advance the overall project schedule. In contrast, for design-build projects, taking the design to a high level can reduce the design-builder's ability to be innovative and to optimize its strengths, and furthermore may result in retention of design liability by the project owner. As a result, for design-build projects the content of the NEPA document needs to be crafted in a way to maintain flexibility or a range of options conducive to creative design and construction.

Evaluation of Proposals

The topics discussed also included the advantages and disadvantages of using either a "point scoring/formula" or an "adjectival/analysis" method for evaluating quality, price and best value. A number of public agencies identified in the Design-Build Practice Report including the Naval Facilities Engineering Command (NAVFAC), Utah DOT, Utah Transit Authority, Colorado DOT, and Minnesota DOT have successfully used the adjectival/analysis method on transportation projects. The New Mexico State Highway and Transportation Department is currently using the adjectival/analysis method on its prototype design-build projects.

A number of participants in the discussion acknowledged that there are advantages associated with the adjectival/analysis method. The objections expressed to the use of the adjectival/analysis method were: (1) the fact that NYSDOT uses a point scoring system in selection of engineering consultants, and (2) the State Comptroller's Office, which holds the contracting authority for all State agencies, may express a preference for the point scoring method. These concerns need to be addressed in the development of the final process.

Negotiations

Owners with procurement authority to negotiate with the selected proposer (after the best value determination is made, but prior to execution of the contract) have found negotiations to be very beneficial in sorting out any outstanding scope issues or questions remaining from the evaluation of quality and price. The flexibility of the pending NYS design-build legislation appears to allow pre-execution negotiations. The recommended procedures will therefore not preclude negotiations.

3.0 Recommended Procedures for Selection of a Design-Build Entity

3.1 Assumptions Including Legal and Regulatory Consistency

The following assumptions were made in making the design-build procurement recommendations contained in this report:

1. That NYSDOT desires a design-build procurement process that includes the best practices of owners who are successfully using the design-build delivery method — a process that will optimize the benefits of design-build and maximize the strengths and creativity of designers and contractors in teamwork with NYSDOT.
2. That the design-build process should be able to accommodate both large and small projects.
3. That the pending NYS "Design-Build Contracts" legislation will be enacted in the January 3, 2001, draft form. The legislation is broad and flexible and will accommodate the best practice trends summarized in Section 2.2 of this report, the procedures in the proposed TEA-21 rules for "Design-Build Contracting", and the procurement approaches presented in the Design-Build Strategic Planning Workshop — i.e., the legislation contains no prohibitions regarding the recommended design-build process contained in this report. The legislation includes specific process requirements, which are consistent with the recommendations set forth herein. They are:
   - Two-phase selection process;
   - Short listing (to a specified maximum number) based on responses to a RFQ;
   - RFQ content and selection criteria (consistent with best practices and Workshop approaches);
   - Responses evaluated and "rated";
   - Short listed entities receive RFP;
   - RFP content and evaluation criteria (consistent with best practices and Workshop approaches); and
   - Selection and award on the basis of "the best value to the State".
4. That the proposed TEA-21 rules will be implemented as proposed. This is both a safe and a conservative assumption inasmuch as FHWA received very few comments asking for additional restrictions to be placed on State Transportation Departments (STDs) and other agencies wishing to use design-build, and received a number of comments asking for greater flexibility to be allowed to STDs and other agencies. A number of the comments requested that FHWA revise the rule to provide guidelines that

agencies could elect to follow or to ignore, instead of requiring the stated procedures to be followed. A few highlights of the proposed rules are:

- The FHWA Division Administrator's approval of the RFP constitutes FHWA's project authorization and approval to release the RFP — this would be considered the equivalent of approval of plans, specifications, and estimates for design-bid-build projects.
- The RFP cannot be issued until several requirements have been met, including the conclusion of the NEPA review process and provision of appropriate certifications regarding right-of-way, utilities, and railroads.
- Allows a range of selection processes including: two-phase selection, short listing, oral presentations, best value, review of draft RFP (including one-on-one meetings with proposers), adjectival (or scoring) rating process, tradeoffs (or formulae), competitive range, discussions (written and oral), stipulated sum (fixed price/best design), best and final offers (final proposal revisions), stipends, and others.
- The level of importance of the quality evaluation factors must be approximately equal to or less than the level of importance assigned to price (i.e., price must be weighted at least 50%).
- FHWA's general rule requiring value engineering for all federal-aid projects can be satisfied by design-build proposal process.
- Design-builder can perform all the QC and QA actions necessary to assure the quality of and acceptance of the project, with adequate owner QA oversight (including Independent Assurance, or "IA") and verification (minimum necessary sampling and testing).
- Right-of-Way acquisition can be segmented and phased into the construction phase and/or even into the design-build contract for implementation by the design-builder.
- The design-builder may be given responsibility for utility relocations.

3.2 Recommended Design-Build Approach

In order to reap the maximum benefit from the design-build delivery method and to create a different way of doing business with design-build contractors, and consistent with both the pending NYS design-build legislation and the proposed TEA-21 rules, the general concepts and techniques that are recommended to be in the NYSDOT design-build procurement process are:

- Early planning that identifies appropriate projects for design-build procurement and develops a procurement strategy for each individual project to address goals, identification of stakeholders, risks, challenges and unique approaches.
- Inclusion of stakeholders directly in the procurement process to obtain the benefit of their input and reduce the likelihood of disputes.

- Two-phase selection process that narrows the field of final proposers to those that are most highly qualified based on experience, capability, and capacity—thus eliminating the time and expense of those less qualified as well as reducing the effort on NYSDOT's part to evaluate proposals.
- Enhancement of opportunities for innovation through performance specifications and a minimum amount of preliminary design, while reducing uncertainty and contingency through risk sharing and sufficient preliminary engineering.
- Creation of agreements and creative techniques for handling third party issues such as utilities, ROW, and railroads.
- Communications, group meetings, one-on-one meetings, and requests for comments and suggestions with proposers to create an atmosphere of teamwork, trust and "not business as usual", e.g., Requests for Letters of Interest, Informational Meetings/Industry Workshops, Review of the Draft RFP, and Technical Concepts Review.
- Best value selection method that considers quality as well as price in the selection and allows for other than a low price selection.
- Consistency in the design-build procurement process across all projects statewide.
- RFQs and RFPs with clear and understandable instructions to proposers as to what to submit, what is important in the selection decision and how the selection will be made, and a fair, disciplined, and well-understood evaluation and selection process.
- Design review by the design-builder—over-the-shoulder review and/or oversight by NYSDOT. The design-builder responsible for QC and QA actions necessary to assure the quality of and acceptance of the project — QA oversight (including auditing and IA) and verification (minimum necessary sampling and testing) by NYSDOT.
- Contract administration by NYSDOT consistent with the tenets of design-build, i.e., placing responsibility on the design-builder, in an atmosphere of teamwork, trust, partnering, reward, and rapid issue resolution.

3.3 Procurement Process Recommendation

The recommended NYSDOT design-build procurement process is presented in this Section 3.3.

3.3.1 NYSDOT Management

Implementing and administering a design-build procurement process from project inception to project completion will be made easier and more successful if the initiative is assigned to individuals who are well-versed in the concepts and principles of design-build, and who understand the gains in productivity possible with this project delivery method. Successful public owners have removed the management of design-build projects from their normal organizations. They have

created small, separate offices staffed with specially selected, creative, "out-of-the-box" thinking individuals that embrace the concepts of design-build and have the desire to improve the delivery system of capital projects. They are sometimes supported by a design-build consultant.

Similarly, the staff administering the design-build contract after award needs to fully understand and support the concepts of design-build, the new and different responsibilities of the design-builder, and their role in oversight of the design-builder design and construction efforts.

Continuity of personnel is important. NYSDOT's field construction representative responsible for managing the construction oversight for the project should also be a part of the team that plans the procurement, prepares the RFP, and evaluates and selects the design-builder. Similarly, the engineers who write the performance specifications, oversee the preliminary engineering, and prepare the RFP should also evaluate the proposals and review the designs produced by the design-builder. All of this calls for individuals who believe in and are dedicated to a new and different way of doing business and are empowered to manage design-build projects outside the normal organization structure.

3.3.2 The Procurement Process Outline

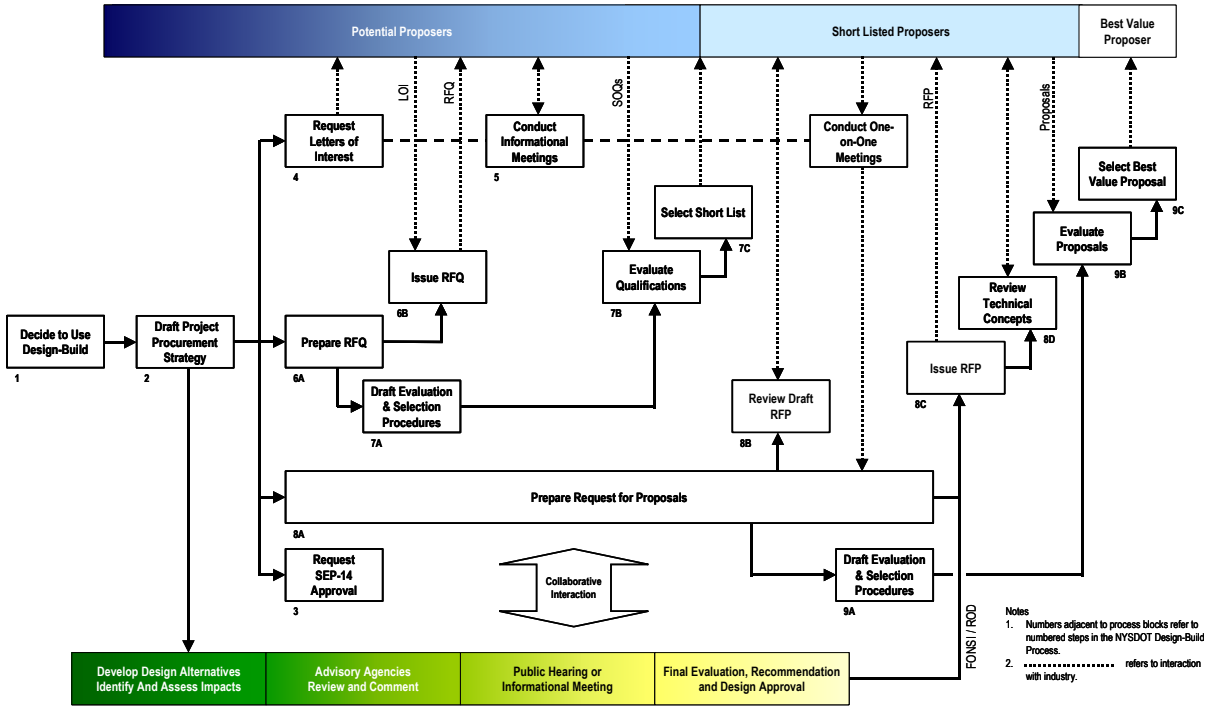
The recommended steps in the design-build procurement process are listed in outline form below. Each step is described in greater detail in Section 3.3.3 below. *Figure 3-1* on the following page contains a flow diagram of the process.

NYSDOT Design-Build Procurement Process

1. The Design-Build Decision
2. Project Procurement Strategy
3. Request for SEP-14 Approval
4. Request for Letters of Interest (RLOI)
5. Informational Meeting(s)
6. Request for Qualifications (RFQ)
   - **A.** Preparation
   - **B.** Issuance
7. Short Listing
   - **A.** Evaluation and Selection Procedures (RFQ/SOQs)
   - **B.** Evaluation
   - **C.** Selection
8. Request for Proposals (RFP)
   - **A.** Preparation
   - **B.** Review of Draft RFP
   - **C.** Issuance
   - **D.** Technical Concepts Review
9. Proposal Evaluation and Selection
   - **A.** Evaluation and Selection Procedures (RFP/Proposals)
   - **B.** Evaluation
   - **C.** Selection

Figure 3-1

Flow Diagram of the Design-Build Procurement Process



3.3.3 The NYSDOT Design-Build Procurement Process

Step 1. The Design-Build Decision

There are a number of reasons that could form the basis for a decision to use a design-build delivery method for a project. Following is a partial list of potential reasons, either singularly or in combination:

- Early completion
- Lower cost and/or certainty of final cost
- Increased quality
- Innovation and creativity
- Single source of responsibility and accountability
- Owner/agency staffing levels
- Less overall management effort for owner/agent
- Less conflict and fewer changes, disputes, and claims.

Early completion is frequently identified as the underlying reason for using design-build. However, all of the above-listed benefits have their place and have been used countless times to justify the use of the design-build alternate delivery method. Both complex and simple projects can benefit by using the design-build method. In some cases, complex projects can be best planned and designed by the entity that will also construct it. By transferring control over all phases of the project to the design-builder, the construction cost and schedule can be optimized, thus removing unnecessary contingency. On the other hand, very simple projects can benefit in both time and cost by avoiding the need to produce full sets of plans and specifications for public bidding.

Any project, structured appropriately for risk, can be delivered using design-build. The challenge is deciding which ones are best suited for design-build under the plans, objectives, policy, and constraints of the NYSDOT and the pending legislation. A number of owners/agencies practice “acquisition planning”, a process of reviewing all projects in the planning horizon and deciding which delivery method is most appropriate. Some owners, such as NAVFAC, have made a program decision to use design-build for almost all their projects, using other methods only as an exception. Other owners use design-build as an exception to normal practice, only when there is an emergency or time is extremely critical. Others use design-build as dictated by challenges, conditions, and pressures.

As a general rule, projects best suited for design-build are projects that have well-defined scopes and clearly meet one or more of the reasons for design-build listed above. It is nevertheless important to institutionalize a procedure for early identification of those projects to be delivered using design-build so as to ensure that all the preparations for NEPA, ROW, utilities, preliminary design/engineering, etc., will be made based on the premise that the project will be delivered using design-build.

Step 2. Project Procurement Strategy

Once a decision is made to deliver a project using design-build, the next step in the procurement process is to formulate a procurement strategy for that project building on the program strategy and process already developed. The steps in the process are:

- **Design-Build Training:** Especially for the first project and any time that new people are involved in design-build, a short training (or refresher) session on design-build will be invaluable in building an understanding and acceptance of the concepts of design-build.

- **Identify Project Stakeholders:** Identifying the stakeholders and creating a way to involve them in the project's procurement process is vital to the project's success. The goal is to know the stakeholder's concerns, address those concerns in the project, and obtain buy-in on the part of each stakeholder in the way the project is to be designed and constructed.

- **Develop Project Goals:** Clearly and definitively articulated project goals are critical to the design-build procurement process. The goals are usually developed in the form of time, quality, and cost, and guide all subsequent decisions of the RFP development.

- **Identify, Assess and Allocate Project Risks:** This crucial step in planning the procurement strategy leads to the development of measures to mitigate the potential impact of a risk, shares risk among the parties by assigning responsibility to the party that can best manage the risk, and ultimately leads to appropriate emphasis in the RFP evaluation factors and contract clauses.

- **Contracting Options and Challenges:** The final design-build procurement process that results from the initiative to Develop Procedures for Management and Administration of a Design-Build Program, including the pending NYS design-build legislation and the proposed TEA-21 rules, will have already identified the preferred contracting option and addressed a number of the challenges. Notwithstanding, each project is unique, and the method of contracting and challenges need to be reviewed in the context of the project's goals and risks.

- **Review the Design-Build Approaches:** The final design-build procurement process will have already chosen the preferred approaches, i.e., proposals, best value, shared risk, performance specifications, and the roles in QC/QA and design review. Those approaches need to be reviewed against the uniqueness and goals of the specific project and modified as necessary. Additionally, specific, project-related approaches need to be considered such as preliminary engineering/ design, stipends, incentives, long-term maintenance, warranties, wrap-up insurance,

subcontracting, etc. This is especially true regarding the type and amount of preliminary engineering (or design) that must be accomplished consistent with NEPA, risk issues, and stakeholder concerns. This includes the project-specific approaches for utilities, ROW, drainage, railroads, etc.

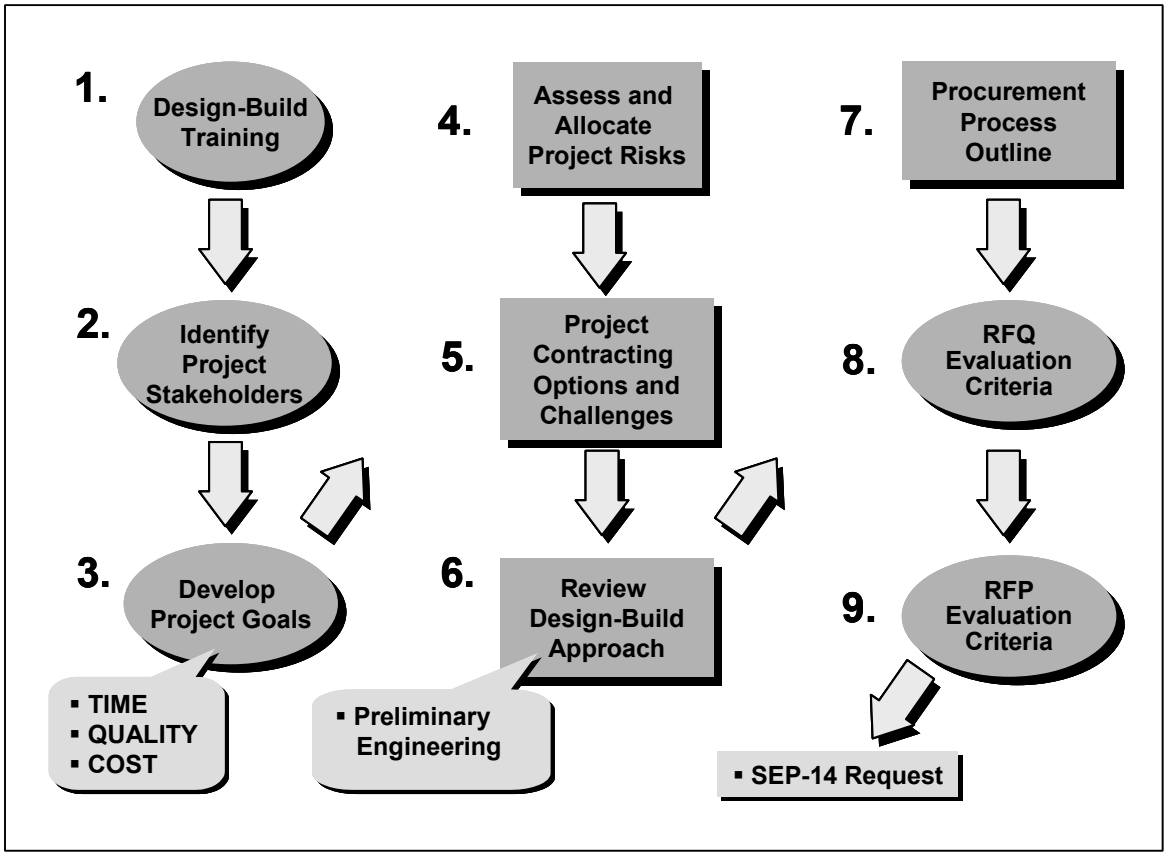
- **Procurement Process Outline:** As with the previous two steps, this will already be in template form and will only need to be reviewed and adjusted as necessary for project uniqueness. A description of the overall procurement process will be included in the RFQ.

- **RFQ Evaluation Criteria:** In this step the project evaluation factors for the RFQ/SOQ as well as their relative importance will be determined. The section on **RFQ/SOQ Evaluation Factors** in Step 6 of the procurement process below contains a discussion on the evaluation factors for the RFQ.

- **RFP Evaluation Criteria:** Although the project procurement strategy development is early in the procurement cycle, the strategy will have identified (through the goals, the risk analysis, and the challenges) those aspects of the project that are "most important to the Department and the stakeholders" and therefore, an initial sense as to the evaluation factors for the selection and their relative importance. Being able to make a first cut at articulating these factors will afford a check against decisions on the type and degree of preliminary engineering and the mitigation measures for significant risk issues. These anticipated evaluation factors should likewise be included in the RFQ to provide potential proposers with a "heads up" on the critical issues of the project and provide guidance in formulating their team.

Figure 3-2 on the following page shows a flow diagram of the procurement strategy planning process for each project as discussed above.

Figure 3-2 -- Project Procurement Strategy Process



A guide document will be developed to assist NYSDOT regions in selecting projects suited for delivery by the design-build method and to facilitate the formulation of a project procurement strategy.

Step 3. Request for SEP-14 Approval

If the design-build project is a Federal Aid project over $50 million, then TEA-21 and its companion rules will guide the procurement, with project approval coming from the applicable FHWA State Transportation Department prior to release of the RFP. However, if it is a Federal Aid project under $50 million, approval to use the design-build delivery method must come from FHWA through the Special Experimental Project-14 (SEP-14) program. A SEP-14 request will need to be prepared and submitted to FHWA. The results of the project procurement process of Step 2 above will be the basis of the SEP-14 request. A guide document and template will be developed to assist in the preparing and submitting of a SEP-14 request.

There may be a rare incidence where, given unique circumstances, the Department may wish to deviate from the TEA-21 rules associated with projects over $50 million in using the design-build delivery method. In this case, SEP-14 may still provide the opportunity to request FHWA approval.

Step 4. Request for Letters of Interest (RLOI)

Publishing/issuing brief Requests for Letters of Interest (RLOI) facilitates the design-build process by:

- Announcing and generating interest in a project among a wide spectrum of potential design-build team members;
- Encouraging early formation of design-build teams; and
- Initiating and providing for efficient future communication between NYSDOT and potential design-build team members.

Typical contents of a RLOI include:

- Brief project description;
- Statement of the goals and expectations of the project;
- Name and address of NYSDOT contact;
- Due date and other early schedule information;
- Invitation to an informational meeting, if planned; and
- Other required procurement information.

Depending on the scope and complexity of a project, NYSDOT will issue an RLOI through its normal channels of announcing projects such as the State Register and the NYSDOT website, and may also augment those channels by advertising the project in other publications directed to a broader geographic area or to selected, focused components of the design and construction industry.

Step 5. Informational Meeting(s)

One or more informational meetings should be held to disseminate more detailed information about the project and the procurement process as the project progresses. Early information meetings facilitate the formation of viable design-build teams. Information meetings also set the stage for open communications and partnering that are critical to the success of design-build projects. This represents the first opportunity to convey trust and the “different way of doing business” inherent in the design-build delivery method, and the sincerity of NYSDOT in seeking design-builders who wish to team with NYSDOT for the success of the project. Informational meetings can be held:

- Prior to, concurrently with or subsequent to issuance of a Request for Qualifications (RFQ);
- At significant milestones in the development of the Request for Proposals (RFP) or other significant project-related milestones, such as the approval

of environmental documents; execution of key agreements, or securing funding;

- Concurrently with or following issuance of the RFP; and/or
- Following issuance of an RFP to announce and/or explain significant revisions to the project or the RFP.

Informational meetings typically cover:

- Design-build orientation, especially in earlier stages of initiating a design-build program;
- Scope of work and key technical aspects of a project;
- Information relative to environmental, stakeholder, and community concerns and constraints;
- Schedules of the procurement process and the project;
- Evaluation factors and the evaluation and selection process;
- Key contractual requirements;
- Minority/Women/Disadvantaged Business Enterprise (M/W/DBE) and Equal Employment Opportunity (EEO) Program requirements;
- Organization of procurement and contract documents;
- Other mandated administrative and procurement information;
- The intended team relationship between NYSDOT and the design-builder; the risk sharing and preliminary engineering built into the project; and the roles of NYSDOT and the design-builder, especially in design and construction QC/QA.

Informational meetings normally also provide for a question and answer period at the end of any presentation to foster the open communication process. The Department may also elect to make attendance at the meeting mandatory for those submitting proposals on the project. Moreover, the meetings can be announced in the local media and on the NYSDOT website and interested parties and stakeholders specifically invited. Following the meetings, informational handouts and attendance lists should be made available to the media and the attendees.

Depending on the risks, complexities, or the need for creativity regarding a project, NYSDOT, during the RFP preparation phase, may elect to invite interested potential proposers to one-on-one meetings in order to gain further insight into what the design-build teams see as the major challenges and keys for success. Insights gained during these meetings will manifest themselves in the details of the RFP document.

Step 6. Request for Qualifications (RFQ)

The RFQ is the basic action/document of Step One of the two-phase selection method required by the pending NYS design-build legislation. A number of basic facts about design-build affect the RFQ process, including:

- The overall procurement/proposal process, particularly the preparation of proposals in response to an RFP, requires a significantly greater commitment of resources and dollars on the part of the proposers, compared with the resources required to bid on a design-bid-build project;
- Design-build teams are willing to incur these costs, provided that they have a reasonable chance of success and the competition is limited to a reasonable number of teams;
- At the RFQ stage, specific project requirements and constraints are rarely defined to the level that allows design-build teams to identify "how" they propose to complete a project;
- The owner/agency issuing an RFQ needs to consider the resources and time it may need to evaluate Statements of Qualifications (SOQs) submitted in response to an RFQ; and
- Staff that will perform the evaluations must be identified early and trained. Using staff that was involved in the preparation of the RFQ builds consistency in the process.

While the owner/agency may want to find out, as part of the qualification process, how design-build teams propose to solve project-related problems, the answers to such questions require expenditure of significant resources and therefore are more appropriately left to the RFP phase.

Experience has proven that RFQs that focus on determining the qualifications of potential design-build teams better serve the overall procurement process than seeking solutions at this first phase of the procurement. Maintaining a focus on qualifications minimizes the cost to the design-build teams in preparing their SOQs and minimizes the owner/agency resources required to evaluate the SOQs and determine an appropriate short list. This qualifications-only approach is also consistent with the pending NYS design-build legislation and the proposed TEA-21 rules.

RFQ/SOQ Evaluation Factors

Evaluation factors generally fall into two categories, i.e., "pass/fail" and quality factors. The "pass/fail" factors usually include:

- Legal; Financial (normally a statement from a surety indicating a willingness to provide bonds, although some agencies prefer to examine the design-build contractor's and guarantor's financial statements as well, particularly for larger projects or project revenue-financed projects); and

- Completeness of the SOQ (this factor provides emphasis and incentive for design-build teams to provide all information in the specified format and gives the owner/agency means to "encourage" compliance).

Quality factors for the RFQ/SOQ often include:

- Experience of the firms (joint venture or partnership members or the general contractor; lead designer; and major or specialized subcontractors or subconsultants);
- Past performance, including awards and citations, on-time performance record, safety record, past and present history of litigation and arbitration, record of terminations for cause and default, disciplinary action, record of DBE participation;
- Organization (identification of team members, their proposed role, division of work and responsibilities, and prior experience as a team);
- Backlog/Capacity (current and/or future commitments of design-build team members); and
- Project understanding (the design-build team's knowledge and understanding of specific project issues and concerns).

It should be noted that the proposed TEA-21 rules for design-build recommend that agencies avoid re-evaluation, at the RFP step, of factors that were already evaluated at the RFQ/SOQ step. In general, it would be appropriate and relevant to evaluate similar qualifications in both steps if it is decided in the RFP step to review another aspect or broader details with regard to the firm or staff experience. For example, it is normally desirable during the RFQ/SOQ step to evaluate the qualifications of a few, specific key personnel and to evaluate other key personnel during the RFP/Proposal step of the process. Deferring identification of the majority of the key personnel until the RFP/Proposal step allows the shortlisted proposers to better understand the scope and challenges over the prolonged period of the procurement process and to better plan their organizations to be responsive to the RFP. In order to adhere to the guidance of the proposed rules, the specific key personnel identified in the SOQ should not be re-evaluated in response to the RFP, unless the proposal includes information not submitted with the SOQ. Further, the proposed TEA-21 rule does not preclude NYSDOT from carrying over the overall ratings of the SOQs of the shortlisted proposers to the RFP step as a quality evaluation factor for "Qualifications". This approach enables the design-build teams' qualifications to be considered in the final determination for selection, instead of being used simply as a pass/fail factor for short listing.

Composition

The composition of an RFQ should be fairly standard from one project to another. While the specific information to be submitted with the SOQs may vary somewhat from project to project, the general organization and categories of information can easily be standardized, thus having a three-fold benefit:

(1) making preparation of the RFQ easier and faster for the Department; (2) making preparation and submittal of SOQs less costly for the proposers; and (3) facilitating the evaluation of the proposals by the Department, as all the SOQs are composed in a similar fashion.

The main body of an RFQ should include:

- Statement of project goals and objectives;
- General information relating to project schedule, governing law, insurance and bonding requirements, how inquiries from design-build teams will be handled, RFQ amendment procedures, Department notification procedures, other administrative matters and "Rules of the Game" (how the parties will communicate with each other during the SOQ preparation and evaluation phases);
- Explanation of the overall two-phase procurement process and schedule, including summary information relating to the RFP step to the extent it is known;
- Explanation of the SOQ evaluation process, including evaluation objectives, evaluation factors and their relative importance, method of evaluation, and the short listing criteria and process;
- Protest procedures;
- State and Department's rights and disclaimers;
- M/W/DBE and EEO requirements; and
- Other mandated provisions.

It is recommended that three (3) appendices be included in the RFQ.

- Appendix A typically provides a more detailed description of the scope of work, including the project limits, physical components to be designed and constructed, current status of the project, design-builder roles and responsibilities, Department roles and responsibilities, Department-provided materials or equipment, and stakeholder roles and responsibilities. Appendix A may include maps, sketches, or other general graphic representations of the project, but not engineering drawings. The contents of Appendix A are provided in a stand-alone document because the information is likely to vary significantly among different projects.
- Appendix B clearly identifies the SOQ submittal requirements, including page limits and specific content requirements for each of the identified evaluation factors. The appendix also defines the format for submittal of the SOQ. If the format is not specified, the proposers will organize their SOQs in any number of ways, with significantly varying formats. Specifying the organization and format of the SOQs makes evaluation of the SOQs much easier and faster for the owner/agency staff and assures more equitable evaluations.
- Appendix C contains the forms required for the SOQ. Some forms may be Department, State or federal standard forms required for all procurements.

Other forms are developed to provide design-build teams a standard format on which to provide the information requested in the RFQ. The forms clearly identify the information required and facilitate preparation and evaluation of the information. The RFQ forms do not usually vary significantly from procurement to procurement.

A. Preparation

The preparation of the RFQ, especially the main body of the RFQ, requires significant coordination not only within the Department, but also among other State and Federal agencies, such as FHWA, the State Comptroller and the State Departments of Environmental Conservation and Labor. Coordination with other stakeholders may be necessary. Preparation and procurement scheduling need to consider necessary review and comment resolution time, particularly in the early stages of design-build program implementation.

It is necessary to develop a list of the specific items addressing each evaluation factor to be submitted with the SOQ. It can be beneficial to include a brief discussion of the rationale (objectives) underlying the identified evaluation factors. Identifying the objectives and specific information to be submitted allows the design-build teams to direct their efforts in addressing the Department's major concerns and provides guidance to the Department's evaluators regarding what is important.

The list of objectives and particularly the list of information to be submitted must be developed carefully, avoiding asking for too much information. Requiring more information to be provided than is strictly necessary not only increases the cost of preparing an SOQ, but also requires the Department to devote more resources than may be necessary to evaluate the SOQs. Content and preparation of the RFQ should always focus on the Department's overall goals and objectives. Every effort should be made to seek information about discriminators — those items that differentiate one design-build team from another. The guiding premise should be to focus on "what's important to the Department".

B. Issuance

The RFQ should be announced and issued to allow sufficient time for design-build teams to prepare a response and to develop the necessary teaming arrangements. For smaller, less complicated projects, a response time of 30 days may be adequate. For larger, more complex projects, the time from issuance to the SOQ date should be at least 45 days. The time between issuance and receipt of SOQs should also accommodate a period for questions from the potential participants and responses to those questions by the Department.

Although the RFQ can be issued in paper format, there are definite benefits to the Department and the design-build teams in having the RFQ issued in electronic format, either via a web-site or on CD-ROMs. Electronic format allows rapid distribution among design-build team members, many of whom may be geographically separated. Furthermore, use of electronic format facilitates the use of standardized forms in the SOQ. Although not as evident with the RFQ as with the RFP, distinct cost and time benefits can accrue to the Department from electronic issuance of the RFQ (and RFP) documents.

Step 7. Short Listing

The short list resulting from the RFQ process should include more than one and less than six design-build teams. If the competition includes more than five teams, it is likely that one or more of the teams (possibly the most qualified) will decide to devote their resources to other projects, due to the reduced chance of success associated with a higher number of competitors. A minimum of three teams is desirable in order to provide a more reasonable level of competition and to avoid having the design-build teams "in the driver's seat" (sometimes the case if only two are short listed) as RFP requirements are established and proposals are made.

The short list does not have to include all design-build teams that are "qualified" or receive "acceptable" or better ratings. The short list may be limited to the "best qualified", particularly if there is a significant break in the ratings between similarly rated groups of SOQs.

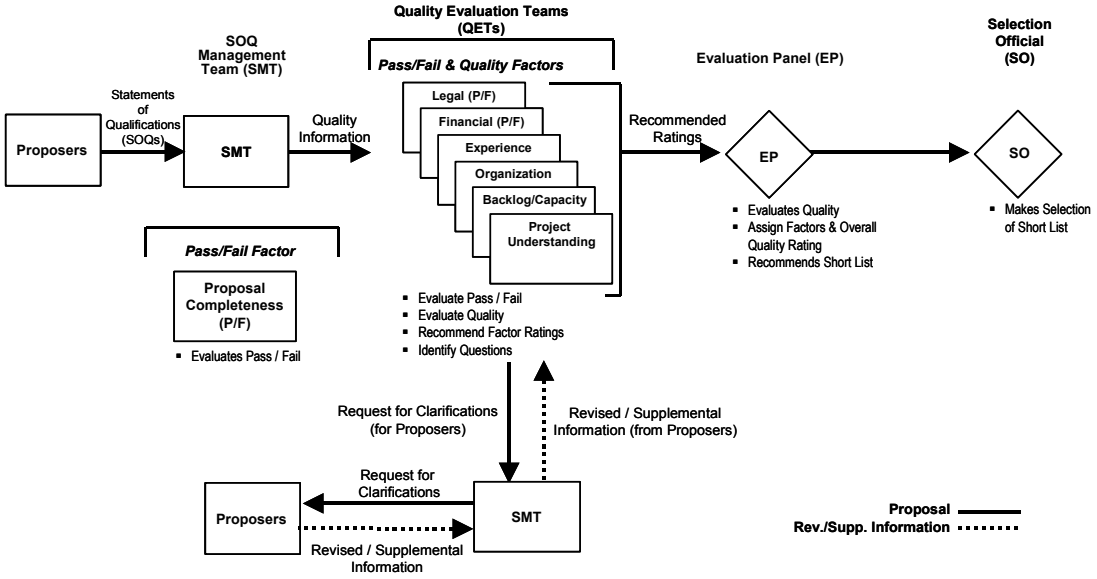
A. Evaluation and Selection Procedures (RFQ/SOQs)

Step 9.A below provides a complete discussion of the Evaluation and Selection Procedures (E&S Procedures) for the RFP/Proposals phase of the process, which in rationale and function are almost identical to the procedures for the RFQ/SOQs phase. It is equally as important to the integrity of the evaluation of the SOQs and selection of the short list to have a fair and disciplined set of procedures set out in written form.

Figure 3-3 on the following page shows a generic flow diagram for the SOQ evaluation and selection process. (It is the process that occurs in Step 7.B and within Box 7B of the Figure 3-1 flow diagram of the complete procurement process.) As also mentioned in Step 9.A, the process is very flexible and adaptable. The evaluation and selection of the short list could, especially for smaller projects, be compressed to a single board or committee to both evaluate the SOQs and select the shortlisted proposers.

Figure 3-3

Generic Flow Diagram for the Evaluation and Selection Process (RFQ/SOQ)



B. Evaluation

The evaluation must follow the process and procedures set out in the RFQ and the E&S Procedures and require the same coordination, control, and scheduling as discussed in Step 9.B below. Additionally, the section on RFQ/SOQ Evaluation Factors in Step 6 above recommends carrying over to the RFP phase the overall rating for the SOQ as a quality evaluation factor for "Qualifications". Consistent with the discussion on the method of evaluation (i.e., adjectival/analysis) under Step 9.B below, the method of evaluation of the SOQs should be identical to that of the proposals to facilitate the carryover of the Qualifications rating.

C. Selection

The selection will culminate in the short list as discussed above. Consistent with Step 9.C below, it is important that the selection be the product of (precisely follow) the evaluation and selection process articulated in the RFQ and the E&S Procedures. As mentioned above a designated individual or a committee may make the selection. The selection official (or committee) should have the authority to exercise professional judgment in reviewing and evaluating the qualifications and in deciding who is on the short list and who is not. The selection of the short list may also have to be reviewed by others in NYSDOT prior to announcement. As will be required in the E&S Procedures, the selection decision will be fully documented in a report that will accompany the review and become part of the project file.

Step 8. Request for Proposals (RFP)

The RFP is Step Two in the two-phase selection method required by the pending NYS design-build legislation. For design-build, the RFP is the "product" of the Department's efforts. It is analogous to the production of plans, specifications, and estimate (or the Technical Documents) in a design-bid-build delivery process. Everything being produced in support of a design-build procurement (i.e., preliminary engineering/design; agreements with utilities and others; ROW, environmental assessments and permits; performance specifications, etc.) feeds into the RFP. Rather than focus on solving problems, the Department will identify problems and define issues for the design-builder to solve. A well-conceived and well-written RFP is crucial to the success of a design-build project.

Composition

A Request for Proposals (RFP) typically includes three components, namely:

- Instructions to Proposers (ITP);
- Contract Documents; and
- Reference Documents.

The ITP establishes the rules, processes, and procedures for preparing and submitting Proposals. The Contract Documents include those documents that will constitute the contract executed between the Department and the successful proposer. Reference Documents include various information and documents provided to the proposers "for information only" and are used by proposers/ contractors at their risk for reasons they may deem appropriate.

An example of the typical components of an RFP is shown in *Figure 3-4*.

Figure 3-4

Components of the RFP

Request for Proposals			
Instructions to Proposers	**Contract Documents**		**Reference Documents**
General Instructions	Form of Contract	Utilities Requirements	Existing as-built Drawings
Appendix A: Proposal Document Instructions	DB Section 100 Specifications	Environmental Requirements	Background or Preliminary Reports
Appendix B: Pricing Instructions	Special Provisions	Preliminary Drawings	Stakeholder Agreements
Appendix C: Forms	Design Criteria	Engineering, Geotech and Survey Data	Memoranda of Understanding
	Performance Specifications	Construction Specifications	Historical Data and Information

It should be noted that certain information submitted by the successful proposer, including specific legal, management, and technical information and pricing documents, will be incorporated into the Contract Documents at award.

The General Instructions of the ITP should contain the following information:

- General information relating to governing law, insurance and bonding requirements, how inquiries from design-build teams will be handled, RFP amendment procedures, Department notification procedures, other administrative matters and "Rules of the Game";
- Specific proposal and selection schedule for the RFP phase;
- Explanation of the proposal evaluation process, including evaluation objectives, evaluation factors and their relative importance, method of evaluation, and the selection criteria and process;
- Clear identification of the proposal submittal requirements, including page limits, specified formats, and specific content requirements for each of the identified evaluation factors;

- Information pertaining to required meetings and/or presentations and interviews;
- Protest procedures;
- State and NYSDOT rights and disclaimers;
- Minority/Women/Disadvantaged Business Enterprise and Equal Employment Opportunity Program requirements; and
- Other mandated provisions.

Appendix A of the ITP, Proposal Document Instructions, includes detailed instructions relating to the information to be submitted for each of the evaluation factors and subfactors. This appendix also needs to clearly define what information submitted with the proposal will be incorporated into the contract and what information will be used for evaluation and selection purposes only. For example, specific proposed technical solutions would be incorporated into the contract while resumes of key personnel would not. This appendix should also specify the organization and format for the proposals; otherwise information may be presented in any number of ways by different proposers, making evaluation difficult and time consuming.

Appendix B of the ITP, Pricing Instructions, should be separated from instructions relating to other components of the proposal, in part to emphasize the necessity for keeping price and other proposal information completely separated. The pricing instructions need to be tailored to the pricing concepts and needs of the project, and need to be clearly specified. The organization and format of pricing information to be submitted should be clearly specified. Unlike a design-bid-build project where the pricing document may only be a bid form, pricing documents for a design-build project may include a greater variety of documents, such as a proposed payment schedule, price/cost loaded schedule, and definition of components of lump sum priced work. If options are included in the RFP, the Pricing Instructions need to explain how the option prices will be treated in the overall price consideration.

The engineer's estimate should be prepared in the same format as the price information to be submitted, in order to facilitate the review and analysis process. It should be noted that the engineer's estimate is not normally revealed in an RFP.

Appendix C of the ITP contains the forms required for the Proposals. As with the RFQ forms, some forms may be NYSDOT, State or federal standard forms required for all procurements. Other forms are developed to provide design-build teams a standard format on which to provide the information requested in the RFP, particularly the price information.

The Contract Documents are generally self-explanatory. Those deserving some explanation include:

- DB Section 100, which needs to include provisions for design management and review and the specific roles and responsibilities of the Department and the design-build team (particularly relative to quality assurance and quality control) and to reflect the selected lump sum pricing and payment concepts for a project.
- Design Criteria that define the technical standards and requirements for the design of the various components of the project.
- Performance Specifications, typically tailored to the needs of a specific project and focused on the desired end result rather than the "how to" approach in traditional design-bid-build specifications.
- Environmental constraints and commitments from the environmental process for the project.
- Utilities Requirements, with a focus on the roles and responsibilities of the Department, the utility owners, and the design-build team, including assignment of responsibilities for design and construction and timing of utility owner work.
- Engineering, geotechnical, and survey data, which in a design-build contract are typically limited to "raw data", such as traffic counts and projections, presence of hazardous materials, and boring hole and sampling and testing data. If interpretive information is available, it is usually placed in the Reference Documents.
- Construction Specifications, which may be tailored to the project, but often are the owner/agency's standard construction specifications, with certain of the specifications being superseded or supplemented by the Special Provisions and/or Performance Specifications.

The Reference Documents often include information gathered from earlier projects, by entities other than NYSDOT, and often for purposes unrelated to the project, and may include preliminary reports relating to project conditions. Agreements applicable to the project that do not involve the design-build team as a signing party are often provided in the Reference Documents.

A. Preparation

As with the RFQ, preparation of the RFP requires significant coordination not only within the Department, but also among project stakeholders. The RFP development needs to be a continuously and fully integrated process among those responsible for procurement, management, technical development, and project support activities, such as right-of-way acquisition, environmental analysis and decision-making, public information/community relations and stakeholder involvement and coordination.

The focus in preparation of the evaluation factors and subfactors for the Instructions to Proposers, should be to answer the question "What is important to the Department and stakeholders and why?" The answer to that question will provide guidance in identifying the objectives for each factor/subfactor and the specific information to request in the RFP.

The "pass/fail factors" in the RFP are generally the same as in the RFQ, although the information requested will differ in certain respects, including legal, financial, and the completeness of the proposal.

The quality factors/subfactors in an RFP might include:

- Management (includes proposed schedule, quality plan, safety plan, maintenance of traffic and access, organization, key personnel qualifications, design and construction management, etc.);
- Technical (depends on the scope of the project but would include such items as geotechnical, structures, pavement, drainage, etc.); and
- Project support (may include environmental mitigation and monitoring, public information/community relations, etc.).

The primary difference between the RFQ and the RFP is that the evaluation criteria for the RFP also includes price. Consistent with FHWA requirements, the relative importance of price should be at least equal to or greater than the importance assigned to quality.

Care should be taken when establishing the evaluation factors/subfactors and when determining the information to be provided, to ensure the following:

- Factors/subfactors should be limited to discriminators, those items that will differentiate one proposer from another;
- Requested information should focus on those components of the project where flexibility will be allowed in designing and implementing the solution. If the solution and approach are prescribed in the RFP, any question about solution or approach will only result in the proposer "parroting" the RFP requirements in its response. There is no real chance of differentiating between proposers when the solutions are prescribed; and
- The amount of information requested should be reasonable, keeping in mind that the proposers devote costly resources in preparing their responses, and that if unnecessary information is requested, the Department will need to devote additional resources to evaluate it.

The RFP should focus on how proposers will complete the project. As noted above, requesting information already provided in the SOQs adds unnecessary work for the proposers and NYSDOT and is inconsistent with the guidelines provided in the FHWA proposed rules for design-build. If qualifications of key personnel were not requested in the RFQ, the RFP should require that they be

provided, along with a firm commitment that such individuals will be available for the project.

As was also the case for the RFQ, the relative importance of the factors/ subfactors and the method of rating the proposals need to be clearly defined.

In developing the Contract Documents, the management and technical specifications, drawings and data should focus on defining the problem, not specifying the solution. The Contract Documents will constitute the agreement of the parties regarding work to be performed and obligations to be met, defining the level of flexibility and identifying constraints applicable to project components as they relate to project management, technical solutions, and project support activities.

Particular attention should be directed to development or definition of design criteria and performance specifications appropriate to the project. Performance specifications are not required for all project components, and should be limited to those project components where NYSDOT is willing to give the contractor flexibility to solve the problems and where the potential for innovative and cost-effective solutions is the greatest. Allowing flexibility for other components of a project, such as striping, median barriers and signing, is unlikely to produce significant benefits, and for such elements it is appropriate to specify standard practices and processes. This approach will also facilitate the Department's normal maintenance operations and parts supply.

For design-bid-build projects the Department typically expends time and resources analyzing the costs and benefits of different materials and procedures to determine which is the most economical, including pavements (asphalt vs. concrete) and structures (steel vs. concrete). Except in unusual circumstances, the use of design-build provides the opportunity to eliminate such extra efforts by the NYSDOT by leaving such analysis and decision to the design-builder as it determines how to do the work.

Prescriptive specifications may also be appropriate where project components must interface with existing systems, such as traffic control systems, guide rail, bridge rail, street lighting, curb and sidewalk details, utility systems, etc.

Decisions regarding drawings and engineering data to be included in the RFP should be consistent with the risk assessment and allocation performed as part of the Project Procurement Strategy (Step 2). The degree of specificity of the drawings may and should vary between project components. The amount of data gathered should be consistent with the risks and the assignment of responsibility for those risks. These decisions should be made keeping in mind that solutions specified in drawings, specifications, and reports contained in the Contract Documents may result in retained risk by NYSDOT and will reduce opportunities for innovation by the design-builder.

Development of the project management specifications and definition of the Department's roles and responsibilities should focus on facilitating the contractor's management and control of the project and achieving the Department's objectives, while avoiding measures that would negate the inherent benefits of design-build. The management provisions should reflect an attitude of trust, confidence, and partnering.

The Reference Documents portion of the RFP should be the repository of information of use and interest to the proposer/contractor, but should not specify required performance. For example, an environmental document may be placed in the Reference Documents that identifies certain mitigation or permit requirements. If any of those requirements are to be fulfilled by the contractor, those aspects should be extracted from the document and clearly specified as a contractor responsibility in the Contract Documents.

B. Review of Draft RFP

Significant benefits can be derived from having the shortlisted design-build teams review and comment on a draft of the RFP. In many respects, such a review is similar to multiple, independent value engineering studies. Benefits include identification of particular specifications or requirements that are driving cost and/or identifying requirements that are potential "deal killers" or that might force otherwise highly qualified design-build teams to drop out of the procurement. No one should presume that those representing the Department know all the implications to the design-builder of the RFP's numerous management, technical, support, and price provisions. Industry review of a draft RFP gives the Department the benefit of design-builder perspective and typically results in a better RFP and a better project for all concerned. Early identification and resolution of potential barricades and stumbling blocks at the draft RFP stage will benefit all of the parties involved in the process. Early knowledge of the requirements of the RFP through the draft review allows the proposers to jump-start their proposal preparations. Also, by giving the proposers the opportunity to review the RFP and provide comments and addressing their comments, the process will result in fewer ambiguities in the documents and should reduce contingency in pricing of the proposals.

Input from the design-build teams can be in the form of written comments and/or oral meetings.

C. Issuance

The RFP should be announced and issued to allow sufficient time for design-build teams to prepare a response. In a design-build response, the proposer must not only prepare a price proposal (similar to the bids prepared for design-bid build projects) but also may need to conduct additional engineering investigations, prepare a multitude of design documents, conduct extensive research into public needs and perceptions, and prepare written responses to a

variety of questions included in the Instructions to Proposers. While the typical bid period for design-bid-build projects may be 30 to 45 days, it is unusual to see a design-build procurement that allows less than 60 days for preparation of the proposal. A time period of 90 or more days for large, complex projects is not unusual. Conversely, it is also not unusual for design-build teams to start working on their proposals prior to issuance of the RFP if they are aggressive and believe they have a good chance of being short listed.

The time between issuance of the RFP and receipt of proposals should also accommodate questions and requests for technical concept reviews, if included, from the potential participants and the responses to those questions/inquiries by the Department.

As noted with the RFQ, the RFP can be issued in paper format. However, there are even greater benefits in the use of electronic media than for the RFQ, due to the greater volume of RFP documents. Time and cost of production of the RFP documents can be significantly reduced if the documents are issued electronically. If electronic media are used, the RFP documents can literally be assembled and issued in a day's time. Paper copies can take extensive time to assemble, print and check and are more subject to errors (missing pages). For example, the $1.5 billion I-15 Reconstruction Project in Utah had 40,000 pages in the RFP. The final electronic files were assembled on a Monday, and the final RFP was issued 2 days later. It took two weeks to print out a single hard copy of the RFP. The price to reproduce a single paper copy was $3,000. The price of an electronic copy on CD ROMs, using proprietary search software, was $145. In the current CD ROM world, such electronic copies would cost about $5 each. As stated previously, electronic format allows rapid distribution among design-build team members and Department staff, many of whom may be geographically separated. Furthermore, use of electronic format facilitates the use of standardized forms in the proposal.

Although to date no state DOTs have elected to require SOQs and/or proposals in electronic format, it is an option that has merit for the same reasons mentioned above and can be addressed during the development of supporting documents.

D. Technical Concepts Review

As discussed above, the Contract Documents should clearly establish the parameters applicable to design and construction of the project, including standards as well as constraints. For more complex projects, it may be desirable to allow proposers to submit technical concepts for review prior to submitting the actual proposal if they so desire. The purpose of the technical concept review is to allow the proposers to submit technical (or management) concepts to the Department to verify that the concept meets the parameters specified in the RFP. In responding to such a request, the Department would make no statement regarding the quality of the concept, but rather would advise the proposer whether its concept was in compliance with the RFP requirements. In complex

projects, the proposers may be expending significant resources in developing concepts. Technical concept reviews provide assurance to proposers that those expenditures will not be wasted. In addition, if a proposer carries a concept through to submission of a proposal, only to find that the concept does not comply with an RFP requirement (that may be somewhat obscure or subject to interpretation), the proposer would have little opportunity to adjust its proposal in a timely manner, even if discussions and best and final offers were to follow. If the technical concepts are reviewed early, and problems communicated to the proposer, the proposer will have the opportunity to adjust its concept(s) in sufficient time to prepare and submit a fully compliant proposal for evaluation. During the Technical Concepts Review, there is a strict procedure employed to protect the confidentiality of each proposer's technical concepts.

Step 9. Proposal Evaluation and Selection

A. Evaluation and Selection Procedures (RFP/Proposals)

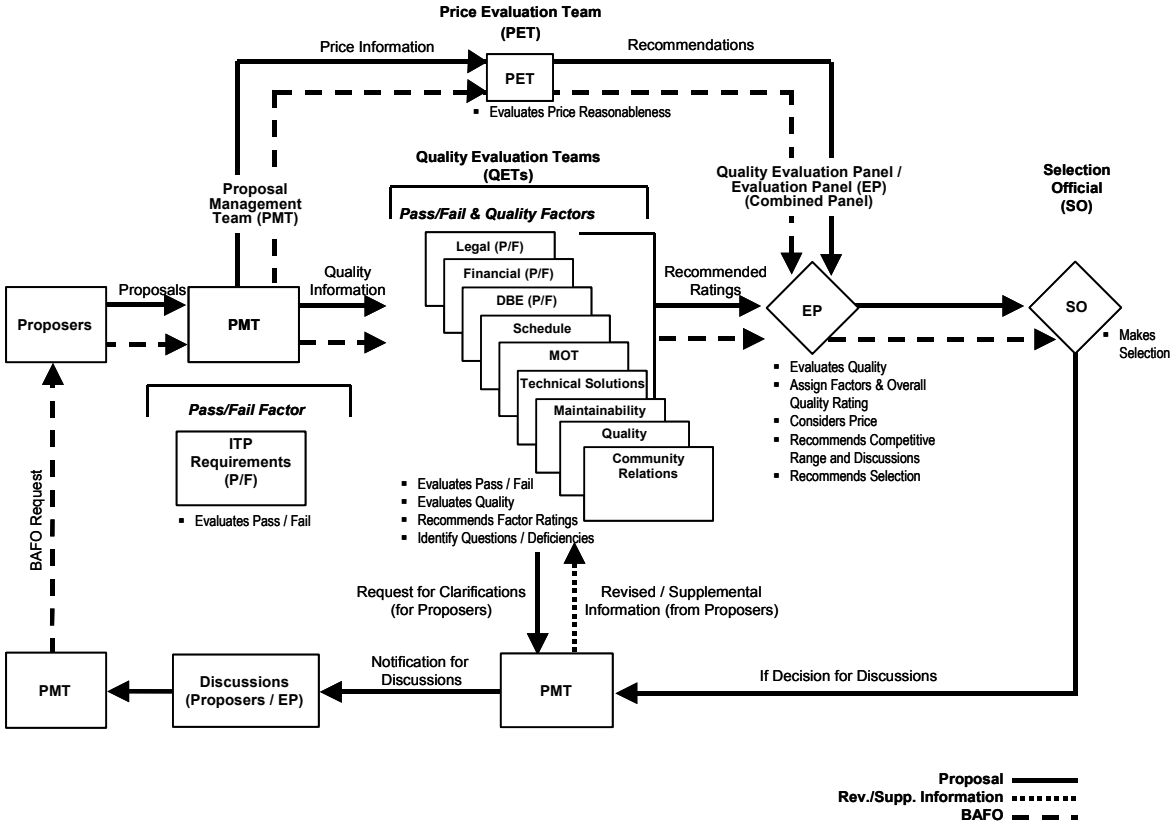
The Evaluation and Selection Procedures (E&S Procedures) document is modeled after the Source Selection Plan, which is required by the Federal Acquisition Regulations (FAR) when selection is made using competitive negotiation (i.e., Source Selection or "best value"). It is the owner's internal document that details the procedures for every step in the evaluation and selection process from receipt of proposals to the final documentation of the selection decision. It also lists the functions of every person in the process from the selection official to the members and chairmen of the evaluation panels(s) to the officials that maintain the integrity of the process to the price evaluators to the technical advisors on the quality evaluation teams. The document is tied directly to and is consistent with the Instructions to Proposers (ITP) section of the Request for Proposals. Portions of the ITP are lifted directly from the E&S Procedures, such as the quality evaluation factors, the rating guidelines, the relative importance between quality and price and between each of the quality evaluation factors, how best value will be determined, and other information regarding pass/fail, clarifications, discussions, competitive range, and best and final offers (BAFO).

The E&S Procedures document is critical to the discipline, fairness, confidentiality, credibility and dependability of the selection process. If followed precisely, it is a shield against successful protests.

Each E&S Procedures document should contain a flow diagram of the evaluation process of that specific project. *Figure 3-5* on the following page contains a generic flow diagram for a mid-sized project reflecting quality evaluation factors of NYSDOT's pending legislation [it is the process that occurs in Step 9.B and within Box 9B of the Figure 3-1 flow diagram of the complete procurement process].

Figure 3-5

Generic Flow Diagram for the Evaluation and Selection Process (RFP/ Proposal)



The process is very flexible and adaptable. Terminology — i.e., Panels, Committees, Boards, etc.— will be adapted to the NYSDOT's preference. For smaller projects, the selection official could be part of the Evaluation Panel; for even smaller projects, a single Panel or Board could do all quality evaluation, price evaluation, best value determination, and selection. For larger projects there could be a separate Quality Evaluation Panel that determines/ recommends overall quality ratings to the Evaluation Panel. There might even be a need for quality evaluation subfactors. As an example of adaptability, on the Hiawatha LRT Project, because price was fixed at a stipulated sum, no combining of quality and price was necessary, but scope and price "reasonableness" were added to the quality evaluation factors.

B. Evaluation

As evidenced in the above discussion on the E&S Procedures, the evaluation process must be disciplined and follow precisely the procedures and responsibilities that are laid out. The process also must maintain strict confidentiality. The proposers must "trust" that the owner/agency will maintain confidentiality of their quality and price proposals — that their technical approaches and prices will not be leaked to the other proposers. The E&S Procedures should require that each individual involved with the Department in the evaluation process sign a Confidentiality Statement. The proposers also need to feel assured that the Department will follow the evaluation and selection process described in the Instruction to Proposers portion of the RFP and treat them fairly in the evaluation. The person or persons assigned to the Proposal Management Team are critical to the discipline of the process.

The period of time for the evaluation must be scheduled, and individuals participating in the evaluation must clear their calendars.

One significant issue that must still be resolved is the method to be used in evaluating the quality factors and best value. The adjectival/analysis method is recommended. Following is a rationale for this recommendation.

The proponents of point scoring/formula argue that assigning points and using an equation to combine quality and price creates greater objectivity — and also avoids the need for the evaluators to assume responsibility for the selection decision because it is based purely on arithmetic. They also argue that the adjectival/analysis method is too "subjective", allows the selecting official too much discretion, and is subject to abuse.

Conversely, proponents of adjectival/analysis contend that it allows professional judgment to be appropriately exercised — both from the standpoints of the professional judgment of the evaluators and the value judgment of the selecting official — and that owners want to and should want to retain that responsibility and authority. They argue that there is no real difference between assignment of points to a quality evaluation factor and assignment of an adjectival grade to the

same factor — both involve the objective, professional judgment of an evaluator. Moreover, point scoring encourages protests. By being able to consider (through analysis and tradeoffs) whether differences in quality are worth the difference in price (both initially and over the long term), the selection official is allowed to exercise appropriate professional judgment to determine which proposal provides the best value to the agency — most advantageous considering price and other factors. Also, abuse of the process can be prevented by specific, disciplined procedures established for the procurement (i.e., evaluation and selection procedures).

C. Selection

The process culminates with the selection of the proposal/proposer that is the best value to the State. It is important that the selection be the product of (precisely follow) the evaluation and selection process articulated in the ITP and the E&S Procedures. As mentioned above a designated individual or a committee may make the selection. The selection official (or committee) should have the authority to exercise professional judgment in reviewing and evaluating the quality and price evaluations, any recommendations, and any tradeoff analysis in the best value decision. The selection may also have to be reviewed by others in NYSDOT prior to announcement. As will be required in the E&S Procedures, the selection decision will be fully documented in a report that will accompany the review and become part of the project file.

After selection (but prior to contract execution) the Department may elect (if provided for in the RFP) to exercise an additional negotiations step in order to sort out any outstanding scope issues or questions remaining from the evaluation of quality and price. See discussions under Section 2.3 above.

4.0 Development of NYSDOT Documents for Design-Build

4.1 Recommended Changes to NYSDOT Contract Documents

Section 100 of the Standard Specifications contains a number of contract forms, sample Agreements, and general conditions that have been developed for the securing and administering design-bid-build contracts. There are a number of other standard forms that are also currently used by the Department for design-bid-build contracts. Portions of Section 100 relating to the procurement process will be deleted because the procurement provisions will be included in a separate document, as discussed in Section 3.3.3 (Step 8) above. Additional changes will be required to reflect the fact that the project design will be provided by the contractor and the possibility that payment will be based on a lump sum contract price instead of unit prices, as well as any changes from the risk allocation concepts and quality assurance/quality control responsibilities inherent in contracts for design-bid-build projects.

Many sections of Section 100, and certain of the forms that are used for design-bid-build projects may be useable for design-build projects in whole or in part without

change, but significant changes will be required to many portions of Section 100 and to the Department's contract-related forms.

Therefore, due to the nature of design-build contracts, and to the number of forms that will have to be changed or modified, Section 100 of the Standard Specifications will be rewritten and the current contract forms and Agreements will also be rewritten.

This will simplify the process of packaging contract documents for design-build contracts. These documents could be adapted from the Department's current documents for design-bid-build projects, and could even use the same numbering conventions. For example, CONR 144 could be revised to become CONR-DB 144.

Special consideration will be made to the documents relating to disadvantaged and minority business enterprises (DBE/MBE). For design-build contracts it is not possible for the proposers to identify their subcontractors as of the proposal date, because of the inability to obtain sub-bids without having the project design to use as the basis for the pricing. In addition, as noted in the review of the existing NYSDOT contract documents, many of the provisions in Section 100 will need to be rewritten.

Portions of the document relating to the procurement process will be deleted because the procurement provisions will be included in a separate document, as discussed in Section 3.3.3 (Step 8) above. Additional changes will be required to reflect the fact that the project design will be provided by the contractor and the possibility that payment will be based on a lump sum contract price instead of unit prices, as well as any changes from the risk allocation concepts and quality assurance/ quality control responsibilities inherent in contracts for design-bid-build projects.

4.2 Recommended Changes to NYSDOT Procedures and Guidelines for Project Administration and Oversight

A more in-depth review was conducted to identify those parts and sections of the major NYSDOT procedure documents (Design Procedures Manual, Highway Design Manual, Standard Specifications, Contract Administration Manual, Construction Supervision Manual, Bridge Manual and the utility procedures) that will likely require revisions to be compatible with a design-build project delivery method.

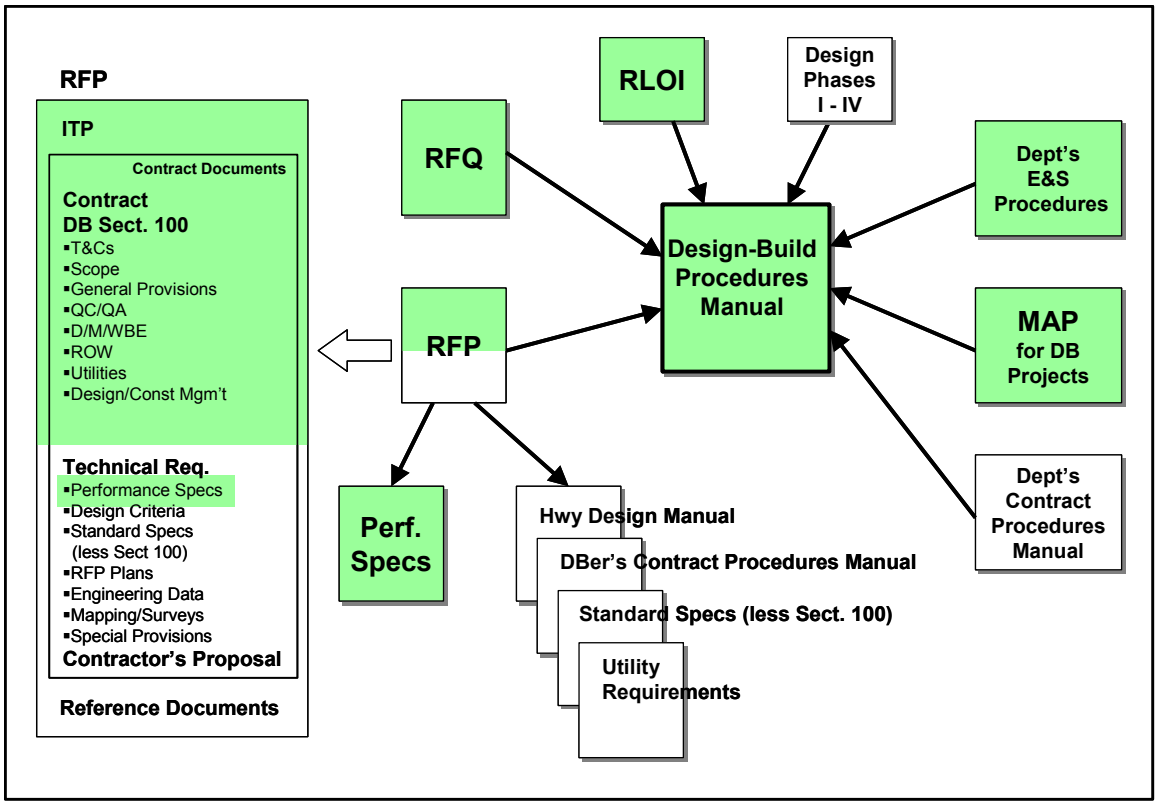
Appendix 2 provides a tabulation of most of the expected revisions along with a brief explanation of the reason for recommending a change.

4.3 Recommended Other Documentation Necessary for a Successful Design-Build Program

Figure 4-1 on the following page is a graphical representation of the documents required for the recommended design-build procurement process. Those documents (or parts of documents) that are shaded are new documents necessary for the design-build program. The unshaded documents are existing NYSDOT documents that will need some revision.

Figure 4-1

Design-Build Procurement Process Documents



The new documents are as follows:

- **Design-Build Procedures Manual:** This is a comprehensive manual that takes a project manager (and others) involved in a design-build project from "cradle to grave", from selecting a project for design-build through the steps for procurement and selection to administration of the design-build contract. It expands on the procurement process steps of this report and provides generic documents/templates and Manuals of Administrative Procedures (MAPs), most as appendices or references and in electronic form for ease in preparing procurement documents.

    - **Request for Letters of Interest (RLOI):** This will include a generic RLOI and an actual project sample.

    - **Request for Qualifications (RFQ):** This will be a template for design-build RFQs (adaptable for the uniqueness of individual projects) that will create consistency statewide to the benefit of all NYSDOT regions and proposers.

    - **Request for Proposals (RFP):** This likewise will be a template for design-build RFPs, though much more comprehensive, which

likewise will be adaptable and create consistency. The RFP will also include a generic Instructions to Proposers, Contract, and a design-build Section 100.

- **Evaluation and Selection (E&S) Procedures:** These will be templates for the Department's internal E&S Procedures for both the RFQ and RFP steps in the design-build procurement process (these may be in the form of MAPs).

- **MAP for Design-Build Projects:** This will be a "checklist" companion to the Design-Build Procedures Manual.

- **Performance Specifications:** These will be newly developed performance specifications for design-build projects (or adapted from any existing NYSDOT performance specifications).

Appendices:

Appendix 1

April 2002 Design-Build Strategic Planning Workshop

[included as separate volume]

Appendix 2

Compatibility of NYSDOT Procedures and Guidelines with Design-Build Procurement

[included as separate volume]